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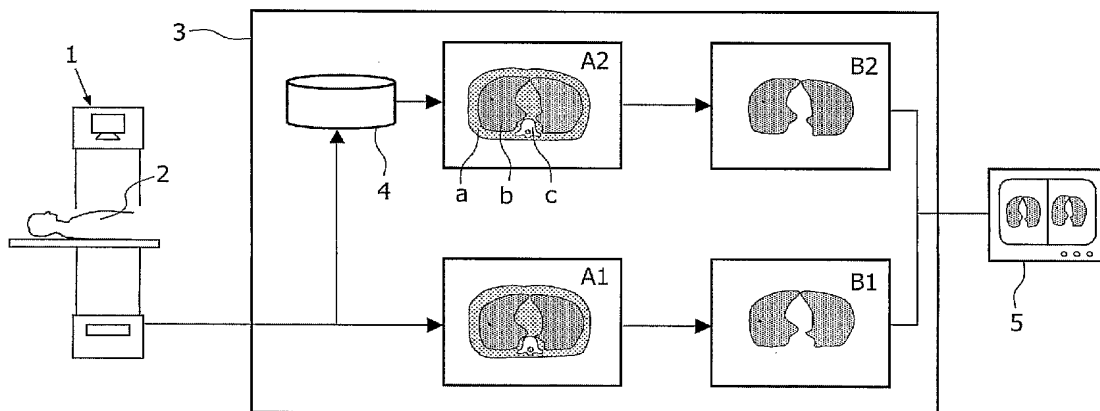


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(57) Abstract: The invention relates to an apparatus and a method for registering a first image (A1) with a second stored image (A2) of an object such as the chest (2) of a patient. The images (A1, A2) may, for instance, have been produced by an X-ray CT system (1) and be used in the trend control of lung tumors. The images (A1, A2) are automatically segmented into various object constituents (a, b, c). Following this, only image areas (B1, B2) of object constituents (b) relevant to the task in hand are registered. In the trend control of lung tumors, for instance, a registration of the lung areas (b) is sufficient.